

Socioeconomic Equity and Sustainability¹

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ABSTRACT

Disparities of social status, wealth, income and political power have been growing over the past several decades, both within and between nations. Socioeconomic inequality is now understood to be integrally linked to environmental degradation, climate change, and blocking of pathways to sustainability. I provide a brief overview of the evidence and arguments for this link, organized around three propositions: that environmental degradation is one of the main ways in which socioeconomic inequality is manifested; that socioeconomic inequality is one of the primary drivers of environmental degradation; and that issues of socioeconomic equity must be addressed before we can make progress on solutions to global environmental problems and transitions towards sustainability.

KEYWORDS

socioeconomic inequality, equality, equity, sustainability

DEFINITIONS

Socioeconomic inequality refers to disparities in income, wealth, status and political access, all of which tend to go together. Equality is a quantitative standard, determined by the level of similarity in these metrics. Equity, on the other hand, is a qualitative ethical concept that refers to the level of fairness in the outcomes for different individuals or groups. Social sustainability refers to the ability of societies to meet human physical, social, and emotional needs on an ongoing basis. Equality and equity are integral to social sustainability.

INTRODUCTION

The causes and consequences of socioeconomic inequality are one of the most important and long-standing topics of investigation in the social sciences. Disparities of social status, wealth, income and political power have been growing over the past several decades, both within and between nations (Wade 2001, Cornia et al. 2004, UN DESA 2005, Kenworthy and Pontusson 2005, World Bank 2011). Socioeconomic inequality is now understood to be integrally linked to environmental degradation, climate change, and blocking of pathways to sustainability. In this chapter I will provide a brief overview of the evidence and arguments for this link, organized around three propositions: (1) environmental degradation is one of the main ways in which socioeconomic inequality is manifested; (2) socioeconomic inequality is one of the primary drivers of environmental degradation; and (3) issues of socioeconomic

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equity must be addressed before societies can make progress on solutions to global environmental problems and the transition towards sustainability.

INEQUALITY MANIFESTED BY ENVIRONMENTAL DISPARITIES

A major way in which socioeconomic inequalities are expressed is through environmental disparities—that is, differences in the quality of the community's or neighborhood's surrounding environment and the form and amount of environmental impacts on the local and global environment. This takes place in several ways:

- Real estate in more desirable locations generally costs more. Thus poorer people generally live in locations with more pollution and fewer natural amenities such as good soil, ample clean water resources, and greater natural beauty.
- Poorer communities are more likely to bear the brunt of environmental degradation due to polluting economic activities. This is the case both because of differentials in land prices (for example, industry will choose to locate in areas where land prices are lower), and also because of outright bias in siting decisions by government decision-makers (who are less likely to antagonize well-to-do constituents by locating an objectionable facility in their vicinity). This is the classical “environmental justice” issue that has been the subject of some citizen activism over the past few decades (Cole and Foster 2000, Rechtschaffen and Gauna 2002, Haughton 1999).
- Poor communities generally do not have the resources to adapt to environmental degradation and climate change. While rich communities can pay to access alternate natural resources, re-engineer infrastructures, and invest in new subsistence and economic activities, poor communities do not have the same capability. Hence they suffer the consequences of environmental degradation more directly and severely.
- Although poor communities experience worse environmental impacts, the poor generate significantly less impact on the environment as measured by standardized metrics such as consumption or carbon output. For example, a study in India documented that landless and small-holder peasants generated only one-quarter the carbon of well-to-do urbanites (Michael 2012). In the Middle East, another study has shown that poor populations within Israeli territory (bottom income decile) generate only one 24th the amount of carbon emissions from electricity and automobile use that the top income decile generates (Rabinowitz and Lubanov 2011). This difference has been obscured for years by the more obvious fact that poor communities, especially in the developing world, impact their local environment in very direct and visible ways such as deforestation caused by gathering of firewood and livestock grazing, or pollution of surface waters by untreated sewage—both of which are caused (in part) by lack of resources to develop alternative approaches.

It should be noted that the environmental disparities experienced by those on the lower rungs of the socioeconomic ladder have the effect of perpetuating and compounding their economic difficulties and lack of economic mobility. This can take place through substantial and debilitating health impacts, loss of soil fertility (and thus nutrition as well as income), the need to travel long distances to obtain suitable water resources, and so forth.

INEQUALITY AS DRIVER OF ENVIRONMENTAL CHANGE

Socioeconomic inequality is, in itself, a significant driver of both local and global environmental change in at least three ways.

First, the existence of socioeconomic inequality (disparities in social status) drives excess consumption (Aydin 2010), leading to a greater burden through natural resource use and waste disposal. Wilkinson and Pickett put this best in their pivotal book on the impacts of inequality (Wilkinson and Pickett 2009): “A very important part of what fuels consumption...is status competition—keeping up with others, maintaining appearances, having the right clothes, car, housing, education, etc., to compare favorably with others. All these pressures are intensified by greater inequality.” Although this understanding dates back at least to the time of Thorstein Veblen’s writing on “conspicuous consumption” (Veblen 1899), scientists are only recently recognizing the connection with environmental degradation.

Second, socioeconomic inequality is a major factor in large family size and thus population growth. The inequality of women—a form of disempowerment including lack of access to education, jobs, political voice, birth control and other health services, as well as lack of empowerment in personal relationships—is one of the reasons behind repeated pregnancies, even when the woman would prefer not to have more children (Arshad 2012, Birdsall 1988). Moreover, without public provisions for the well-being of children and older family members, the poor depend upon large families to ensure children survive to adulthood in order to feed and care for the elderly. The expectation of high rates of child mortality often motivates the choice to have more children, while the survival of elderly may be dependent on subsidies generated by having enough healthy adults of working age in the family—again motivating larger family size (Nugent 1985). It goes without saying that high population density is one factor that contributes to environmental degradation, although it is certainly only a part of the equation—the other being the much higher levels of consumption by the rich (Ehrlich and Holdren 1971).

Third, socioeconomic inequality, which goes hand in hand with political inequality, allows political, economic, and natural resource benefits to be diverted to elite families and business concerns (Korten 1995, Stiglitz 2003, Easterly 2002, Perkins 2004, Klein 2007, Acemoglu and Robinson 2012). Meanwhile the general public, including the poor, are often left holding huge sovereign debts or suffering the social, economic and environmental consequences of the profitable but unsustainable development. This can take place with privately-funded development, but more likely happens with publicly funded projects such as those arranged by the IMF and World Bank. Making matters worse, inequality is linked to corruption (likely as both cause and effect), which creates a scenario for even further abuses of public funding to generate profitable but environmentally destructive development (You and Sanjeev 2005, Rogers 2012).

INEQUALITY BLOCKS SOLUTIONS TO ENVIRONMENTAL PROBLEMS

There are countless ways in which both local and global environmental degradation can be addressed and pathways to sustainability can be initiated. Unfortunately, socioeconomic inequality has the effect of blocking or thwarting many of these potential solutions, in the following ways.

- Socioeconomic inequality blocks sustainable development by diverting resources to the elites and profit-generating business instead, as mentioned in the section above.
- Growing inequality means the poor get poorer, either in relative or absolute terms, even as the overall economy grows (Cornia 2004, UN DESA 2005, World Bank 2011). This phenomenon is

true over many regions of the developing world, and also in the BRIC nations (Brazil, Russia, India and China). This means there are many more people who do not have the resources to implement more sustainable subsistence and economic activities.

- Socioeconomic inequality increases the rate of societal ills, ranging from poorer physical and mental health through higher rates of teen pregnancies, drug use, high school dropouts, crime, homicides, and incarceration (Wilkinson and Pickett 2009). This takes place through many mechanisms including stress, prejudice, conflict, and lack of access to resources. Regardless of the causes, the results are clear: communities and societies are overwhelmed with social crises and cannot turn their attention to environmental degradation and sustainability.
- Socioeconomic inequality spurs migration, as people move elsewhere in the attempt to make a better living (Liebig and Sousa-Poza 2004, Stark 2006). This results in a population which is either not invested in a particular locality, or perhaps lacks the knowledge or the political influence to push for needed changes in the society in which they currently live. Latino seasonal workers in the US agricultural sector, for example, are well aware of environmental abuses and health hazards associated with agrochemical use, but often lack the specific knowledge and influence to report illegal chemical use or advocate for regulation. An exception to this trend was the successful campaign of the United Farm Workers in the 1960-70's (Shaw 2008).
- Socioeconomic inequality blocks local communities from protecting their environment against various forms of degradation (Boyce 2003, Eriksson and Persson 2003, Magnani 2000, Morello-Frosch et al. 2002). People without the necessary economic resources, knowledge, and political clout in their community are unable to demand changes that are necessary. Often, despite enormous and sophisticated grassroots or civil society efforts, the power differentials between the general community and the elites who stand to benefit from environmentally damaging economic activity are simply too great to overcome. One of the most disturbing but representative examples of this problem was the devastating pollution caused by development of the oil extraction and refining industry in the Niger Delta region of Nigeria (Watts and Kashi 2008). When civil society efforts failed to bring the situation under control, an armed resistance formed, engaging in kidnappings and takeovers of oil platforms at sea. They were able to cause considerable trouble for the operations of the multinational oil companies involved in Nigeria, but were ultimately unsuccessful when well-funded paramilitary militias were formed to overcome the local citizen resistance.
- Socioeconomic inequality often complicates the implementation of local sustainability mechanisms (Kosoy and Corbera 2010, Kosoy, Corbera and Brown 2008, Grieg-Gran, Porras and Wunder 2005, Steed 2007). Payment for Ecosystem Services (PES) and REDD (Reducing Emissions from Deforestation and Forest Degradation) schemes affect rich and poor families differently, leading to unintended consequences such as altered community relationships and patterns of wealth. For example, in China the central government-mandated Sloping Lands Conversion Program had a significant negative impact on lower income households, substantially altering family dynamics by requiring longer migration stays in urban areas to obtain income (Liu et al. 2008, Li et al. 2011).
- Socioeconomic inequality reduces cultural diversity by disempowering, displacing, or destroying the culture of various local ethnic groups (Benhabib 2002). In Amazonian South America, for example, many tribal peoples have been forced off their forested lands and into shantytowns as

menial workers, to allow logging, mining, or large-scale agricultural interests to take the land (Schmink and Wood 1992; Browder and Godfrey 1997) This diminishes the embedded cultural knowledge about local environment and traditional subsistence approaches that might otherwise have provided good models for communities looking to move towards more sustainable ways of life.

- Conflict between groups has been linked to socioeconomic inequality (Lichbach 1989, Ember et al. 1992, Cramer 2003, Peters 2004, Besancon 2005). Needless to say, such conflict makes it less likely that the needed collaboration will take place to resolve joint environmental problems and implement sustainability initiatives. A timely example is that of the conflict between ethnic groups (including immigrant groups) in highly unequal South Africa, which fundamentally harms efforts to develop sustainable development in the large impoverished townships such as Diepsloot (Rogers 2012).
- Socioeconomic inequality blocks cooperation, collaborative problem-solving, and needed global accords to address environmental degradation such as biodiversity loss and climate change. This happens through social fragmentation and lack of trust (World Economic Forum 2011, Midlarsky 1999, Daily et al. 1995, Wilkinson and Pickett 2009). Even in the absence of overt conflict, communities and nations are far less likely to cooperate with one another when they are aware that they do not share common interests, benefits, and responsibilities. In other words, even if they were to make an agreement, the various parties would not feel that the allocation of benefits and responsibilities was fair, thereby undermining cooperation. Groups of nations have walked out of multilateral negotiating sessions for this very reason (Pfetsch and Landau 2000, Sanwal 2011). Who would sign an agreement that blocks them from achieving a decent level of development, in order to preserve the right to a much higher standard of living by others?

MOVING TOWARDS SUSTAINABILITY

“Sustainability” is often an over-used but poorly-defined concept that allows anyone to see in it what they want. Over the decades, what is meant by “sustainability” has shifted from non-depletion of natural resources, and possibly protection of functioning ecosystems, to a more holistic understanding that incorporates economic stability and, in some cases, a stable social infrastructure that protects human health and well-being.

The connections between socioeconomic equity and environmental degradation (or protection) outlined in this chapter illustrate that environmental degradation cannot be addressed without also focusing on the social drivers of sustainability. “Social sustainability” means ways of life that are healthy and satisfying for people and communities, and thus can be sustained over time. The material, social and emotional needs essential to human well-being must be met in order for this to be the case (Rogers et al. 2012). Not coincidentally, the changes required to move towards environmental sustainability—a decreased focus on social status and material consumption, and a greater focus on equity and human relationships—may also be the best way to increase human well-being (Eckersley 2006; Eckersley 2011). Improving socioeconomic equality is a critical tool when attempting to map a strategy for shifting societies towards greater sustainability (see chapter, this section, entitled “Mechanisms of Cultural Change and the Transition to Sustainability”). Even with the most enlightened environmental policies in place, without social sustainability the societal foundations of environmental sustainability will eventually erode away through instability, conflict and social breakdown.

REFERENCES

- Acemoglu, and Robinson. 2012. *Why Nations Fail: The Origins of Power, Prosperity, and Poverty*. New York: Crown Business.
- Arshad, Z. 2012. Women's Inequality Linked to Soaring Population. *Inter Press Service* 09-01-12. www.ipsnews.net/2012/07/womens-inequality-linked-to-soaring-population/
- Aydin. 2010. Subjective Well-being and Sustainable Consumption. *Intl Journal Environmental, Cultural, Economic, Social Sustainability* 6:133-148.
- Benhabib, S. 2002. *The claims of culture: equality and diversity in the global era*. Princeton NJ: Princeton University Press.
- Besancon, ML. 2005. Relative resources: inequality in ethnic wars, revolutions, and genocides. *Journal of Peace Research*. 42(4):393-415.
- Birdsall. 1988. Fertility and poverty in developing countries. *Journal Policy Modeling* 10 (1): 29-55.
- Boyce. 2003. *Inequality and Environmental Protection*. Working Paper Series no. 52, Political Economy Research Inst., Univ. Massachusetts.
- Browder, JO and Godfrey, BJ. 1997. *Rainforest Cities: Urbanization, Development, and Globalization of the Brazilian Amazon*. New York: Columbia University Press.
- Cole, L and Foster, S. 2000. *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement*. New York: New York University Press.
- Cornia, G.A. , Addison, T and Kiiski, S. 2004. "Income distribution changes and their impact in the post-Second World War period", in Cornia, ed. 2004. *Inequality, Growth and Poverty in the Era of Liberalization and Globalization*. Oxford: Oxford University Press/ United Nations University, World Institute for Economics Research.
- Cramer, C. 2003. Does Inequality Cause Conflict? *Journal of International Development* 15:397-412.
- Daily, Ehrlich, Ehrlich. 1995. Socio-economic equity - a critical element in sustainability. *Ambio* 24:58-59.
- Easterly W. 2002. *The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics*. Boston: MIT Press.
- Eckersley R. 2006. Is modern Western culture a health hazard? *International Journal of Epidemiology* 35:252-258.
- Eckersley R. 2011. The science and politics of population health: giving health a greater role in public policy. *Public Health* 2(3):WMC001697
- Ehrlich, P and Holdren, J. 1971. Impact of population growth. *Science* 171: 1212-1217.

Ember, CR, Ember, M and Russett, B. 1992. Peace between Participatory Polities - a Cross-Cultural Test of the Democracies Rarely Fight Each Other Hypothesis. *World Politics* 44(4):573-599.

Eriksson and Persson. 2003. Economic Growth, Inequality, Democratization, and the Environment. *Environmental and Resource Economics* 25: 1–16.

Grieg-Gran, Porras and Wunder. 2005. How can market mechanisms for forest environmental services help the poor? Preliminary lessons from Latin America. *World Development* 33 (9), 1511–1527.

Haughton G. 1999. Environmental justice and the sustainable city. *J Planning Education Research* 18(3):233-243.

Kenworthy L, Pontusson J. 2005. Rising inequality and the politics of redistribution in affluent countries. *Perspectives on Politics* 3(3):449-471.

Klein, N. 2007. *The Shock Doctrine: The Rise of Disaster Capitalism*. New York: Henry Holt & Co.

Korten, D. 1995. *When Corporations Rule the World*. Sterling VA: Kumarian Press/Berrett Koehler .

Kosoy and Corbera. 2010. Payments for ecosystem services as commodity fetishism. *Ecological Economics* 69: 1228–1236.

Kosoy, Corbera and Brown. 2008. Participation in payments for ecosystem services: Case studies from the Lacandon rainforest, Mexico. *Geoforum* 39(6): 2073–2083.

Kosoy, N, Brown, PG, Bosselmann, K, et al. 2012. Pillars for a Flourishing Earth: Planetary Boundaries, Economic Growth Delusion and Green Economy. *Current Opinion in Environmental Sustainability* 4:1–6.

Li, Feldman, Li, and Daily, G. 2011. Rural household income and inequality under the Sloping Land Conversion Program in western China. *Proc. Natl. Acad. Sci.* 108(19): 7721-7726.

Lichbach, MI. 1989. An Evaluation of ‘Does Economic-Inequality Breed Political-Conflict’ Studies. *World Politics* 1989, 41(4):431-470.

Liebig, T and Sousa-Poza, A. 2004. Migration, self-selection and income inequality: An international analysis. *Kyklos* 57(1):125-146.

Liu, Li, Ouyang, Tam, and Chen. 2008. Ecological and socioeconomic effects of China’s policies for ecosystem services. *Proc. Natl. Acad. Sci.* 105(28): 9477–9482.

Magnani. 2000. The Environmental Kuznets Curve, environmental protection policy and income distribution. *Ecological Economics* 32: 431–443.

Michael, K and Vakulabaranam, V. 2012. Class Inequality and Climate Change Dynamics in India. London: *Planet Under Pressure* conference poster presentation (March 29, 2012).

Midlarsky. 1999. *The Evolution of Inequality: War, State Survival, and Democracy in Comparative Perspective*. Stanford, CA: Stanford Univ. Press.

- Morello-Frosch et al. 2002. Environmental Justice and Regional Inequality in Southern California: Implications for Future Research. *Environmental Health Perspectives* 10(2): 149-154.
- Nugent. 1985. The Old-Age Security Motive for Fertility. *Population and Development Rev.* 11: 75–97.
- Perkins. 2004. *Confessions of an Economic Hit Man*. New York: Plume.
- Peters, PE. 2004. Inequality and Social Conflict Over Land in Africa. *Journal of Agrarian Change* 4(3):269-314.
- Pfetsch and Landau. 2000. Symmetry and asymmetry in international negotiations. *Intl Negotiation* 5:21-42.
- Rabinowitz, D and Lubanov, C. 2011. *Climate Justice in Israel: Inequality in Greenhouse Gas Emissions from Domestic Electricity Consumption and Private Car Use*. The Association of Environmental Justice in Israel (AEJI), Position Paper no.1, January 2011.
- Rechtschaffen, C and Gauna, EP. 2002. *Environmental justice: law, policy, and regulation*. Durham NC: Carolina Academic Press.
- Rogers, DS (ed). 2012. *Waiting to be Heard: Preliminary Results of the 2012 Equity & Sustainability Field Hearings*. Rapid City, SD: Initiative for Equality, Occasional Report # 1.
- Rogers, DS, Duraiappah, AK, Antons, DC, et al. 2012. A Vision for Human Well-being: Transition to Social Sustainability. *Current Opinion in Environmental Sustainability* 4:61–73.
- Sanwal. 2011. Climate change and the Rio+20 summit: a developing country perspective. *Climate & Development* 3: 89-93.
- Schmink, M and Wood, CH. 1992. *Contested Frontiers in Amazonia*. New York: Columbia University Press.
- Shaw, R. 2008. *Beyond the Fields: Cesar Chavez, the UFW, and the Struggle for Justice in the 21st Century*. Berkeley CA: University of California Press.
- Stark, O. 2006. Inequality and migration: A behavioral link. *Economics Letters* 91(1):146-152.
- Steed. 2007. Government payments for ecosystem services—Lessons from Costa Rica. *Journal of Land Use* 23(1): 177-202.
- Stiglitz, J. 2003. *Globalization and Its Discontents*. New York: Norton.
- United Nations Department of Economic and Social Affairs. 2005. *United Nations Report on the World Social Situation, 2005: The Inequality Predicament*. New York: United Nations Department of Economic and Social Affairs.
- Veblen, T. 1899. *The Theory of the Leisure Class: An Economic Study of Institutions*. New York: Penguin Books.

Wade, RH. 2001. The rising inequality of world income distribution. *Finance & Development* 38(4):567-589.

Watts, M. and Kashi, E. 2008. *Curse of the Black Gold: 50 Years of Oil in The Niger Delta*. Brooklyn, NY: PowerHouse Books.

Wilkinson, R and Pickett, K. 2009. *The Spirit Level: Why More Equal Societies Almost Always Do Better*. New York: Penguin Books.

World Bank. 2011. *GINI Index, By Country*. <http://data.worldbank.org/indicator/SI.POV.GINI/>

World Economic Forum. 2011. *Global Risks 2011*. Geneva, CH: World Economic Forum.

You, J and Sanjeev, K. 2005. A comparative study of inequality and corruption. *American Sociological Review* 70:136-157.

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